Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Withdrawn): A method for transforming a part of ~~a~~ the target semiconductor substrate to be a non-semiconductor material using the system of claim 10, comprising:

generating one or more low energy beams by ~~an~~ the electro-magnetic radiation source for aligning the at least one mask with ~~a~~ the predetermined target semiconductor substrate;

generating ~~a~~ the predetermined amount of high energy particles by ~~a~~ the high energy source; and

passing the high energy particles generated by the high energy source through ~~a~~ the mask target area of the mask to land on ~~a~~ the predetermined area on the predetermined target semiconductor substrate for transforming the semiconductor material thereon to be the non-semiconductor material after the predetermined area receives the high energy particles with ~~a~~ the collective energy level exceeding ~~a~~ the predetermined threshold.

Claim 2 (Withdrawn): The method of claim 1 further comprising dissipating heat energy generated by the high energy particles on the mask.

Claim 3 (Withdrawn): The method of claim 2 wherein the dissipating further includes attaching one or more heat sinks on the mask without blocking an alignment area of the mask and the mask target area.

Claim 4 (Withdrawn): The method of claim 1 wherein the mask set has one or more masks with their corresponding mask target areas aligned in sequence for downsizing the mask target areas sequentially thereby concentrating the high energy particles on the predetermined area.

Claim 5 (Withdrawn): The method of claim 4 wherein the mask target areas of the one or more masks have different passing rates for the high energy particles.

Claim 6 (Withdrawn): The method of claim 1 further comprising confining and absorbing radiations caused by the high energy particles.

Claim 7 (Withdrawn): The method of claim 1 wherein the mask target area is an aperture.

Claim 8 (Withdrawn): The method of claim 1 wherein the mask target area is made of a material that is different from the rest of the mask with an improved particle passing rate to assure that the collective energy exceeds the predetermined threshold.

Claim 9 (Withdrawn): The method of claim 1 wherein the predetermined threshold is above 1 MeV.

Claim 10 (Original): A system for concentrating high energy particles on a predetermined area on a target semiconductor substrate, comprising:

a high energy source for generating a predetermined amount of high energy particles;

an electro-magnetic radiation source for generating one or more low energy beams; and

a mask set exposed to the high energy source and the electro-magnetic radiation source, the mask set having at least one mask with at least one alignment area and at least one mask target area thereon, the mask target area passing more high energy particles than any other area of the mask,

wherein the mask is aligned with the predetermined target semiconductor substrate using the low energy beams,

wherein the high energy particles generated by the high energy source pass through the mask target area to land on the predetermined area on the target semiconductor substrate, and

wherein the predetermined area receives the high energy particles with a collective energy exceeding a predetermined threshold.

Claim 11 (Original): The system of claim 10 further comprising at least one protection shield for protecting the alignment area from being exposed to the high energy particles.

Claim 12 (Original): The system of claim 11 wherein the protection shield includes one or more heat sinks fixed on the mask without blocking the alignment area for dissipating heat energy generated by the high energy particles.

Claim 13 (Original): The system of claim 11 wherein the protection shield is attached to the electro-magnetic radiation source.

Claim 14 (Original): The system of claim 11 wherein the protection shield is attached to the mask.

Claim 15 (Original): The system of claim 10 wherein the mask set has one or more masks with their corresponding mask target areas aligned in sequence for sequentially downsizing a resulting area for passing the high energy particles, thereby concentrating the high energy particles on the predetermined area.

Claim 16 (Original): The system of claim 10 wherein the mask target area is an aperture.

Claim 17 (Original): The system of claim 10 wherein the mask target area is made of a material that is different from the rest of the mask with an improved particle passing rate to assure that the collective energy exceeds the predetermined threshold.

Claim 18 (Original): The system of claim 17 wherein the mask target area is made of a thin material selected from a group consisting of Si based material, Al based material, and W based material.

Claim 19 (Original): The system of claim 17 wherein the rest of the mask is made of a Quartz based material.

Claim 20 (Original): The system of claim 17 wherein the rest of the mask is made of a silicon oxide based material.

Claim 21 (Original): The system of claim 10 wherein the predetermined threshold is in a range between 1 to 5 MeV.

Claim 22 (Original): The system of claim 10 wherein the predetermined threshold is about 3 MeV.

Claim 23 (Original): A system for forming a semi-insulator area on a target semiconductor substrate, comprising:

a high energy source for generating a predetermined amount of high energy particles;

an electro-magnetic radiation source for genera ting one or more low energy beams; and

a mask set having at least one mask with at least one alignment area and at least one mask target area thereon, the mask target area passing more high energy particles then any other area of the mask,

wherein the mask is aligned with the predetermined target semiconductor substrate by using the low energy beams, and

wherein the high energy particles generated by the high energy source with a collective energy exceeding a predetermined threshold pass through the mask target area to transform the predetermined area on the target semiconductor substrate into the semi-insulator area.

Claim 24 (Original): The system of claim 23 wherein the mask set has one or more masks with their corresponding mask target areas aligned in sequence for sequentially downsizing a resulting area for passing the high energy particles, thereby concentrating the high energy particles on the predetermined area.

Claim 25 (Original): The system of claim 23 wherein the mask target area is an aperture.

Claim 26 (Original): The system of claim 23 wherein the mask target area is made of a material that is different from the rest of the mask with an improved particle passing rate to assure that the collective energy exceeds the predetermined threshold.

Claim 27 (Original): The system of claim 26 wherein the mask target area is made of a thin material selected from a group consisting of Si based material, Al based material, and W based material.

Claim 28 (Original): The system of claim 27 wherein the rest of the mask is made of a Quartz or silicon oxide based material.

Claim 29 (Original): The system of claim 23 wherein the predetermined threshold is in a range between 1 and 5 MeV.

Claim 30 (Original): The system of claim 23 wherein the predetermined threshold is above 3 MeV.

Claim 31 (Original): The system of claim 23 further comprising at least one protection shield inserted between the electro-magnetic radiation source and the mask set for protecting the alignment area of the mask from being exposed to the high energy particles.

Claim 32 (Original): The system of claim 31 wherein the protection shield is attached to the electro-magnetic radiation source.

Claim 33 (Original): The system of claim 31 wherein the protection shield is attached to the mask.

Claim 34 (Original): The system of claim 33 wherein the protection shield includes one or more heat sinks fixed on the mask without blocking the alignment area for dissipating heat energy generated by the high energy particles.

Claim 35 (Original): A system for forming a semi-insulator area on a target semiconductor substrate, comprising:

a high energy source for generating a predetermined amount of high energy particles;

a low energy electro-magnetic radiation source for generating low energy beams;

at least one protection shield inserted between the low energy electro-magnetic radiation source and the mask set for protecting the alignment area of the mask from being exposed to the high energy particles; and

a mask set having at least one mask with at least one alignment area and at least one mask target area thereon, the mask target area passing more high energy particles then any other area of the mask,

wherein the mask is aligned with the predetermined target semiconductor substrate by using the low energy beams, and

wherein the high energy particles generated by the high energy source with a collective energy exceeding a predetermined threshold pass through the mask target area to transform the predetermined area on the target semiconductor substrate into the semi-insulator area.